

STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0039004; AI 42978; PER20070001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The permitting authority for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. **THE APPLICANT IS:** Rapides Parish Sewer District No. 1
 Kellyland Subdivision
 P.O. Box 5802
 Alexandria, LA 71307

- II. **PREPARED BY:** Afton J. Bessix

- DATE PREPARED:** April 22, 2008

- III. **PERMIT ACTION:** reissue LPDES permit LA0039004, AI 42978; PER20070001

 LPDES application received: December 7, 2007

 EPA has not retained enforcement authority.

 LPDES permit issued: June 1, 2003
 LPDES permit expired: May 31, 2008

IV. **FACILITY INFORMATION:**

- A. The application is for the discharge of treated sanitary wastewater from a publicly owned treatment works serving the Kellyland Subdivision.

- B. The permit application does not indicate the receipt of industrial wastewater.

- C. The facility is located on Sabina Street, three miles northwest of Alexandria, off LA Hwy. 1 in Kellyland Subdivision, Rapides Parish.

- D. The treatment facility consists of a single cell oxidation pond. Disinfection is by chlorination. Please note this facility discharges to the City of Alexandria; however, Rapides Sewer district No. 1 wishes to continue permit coverage for the oxidation pond.

E. **Outfall 001**

Discharge Location: Latitude 31° 20' 15" North
 Longitude 92° 20' 15" West

Description: treated sanitary wastewater

Design Capacity: 0.1 MGD

Type of Flow Measurement which the facility is currently using:

The application did not indicate a flow measurement device. However, please note that the facility has not been used since November 2005.

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V. RECEIVING WATERS:

The discharge is into Irish Ditch No. 2; thence into Bayou Rapides in segment 060209 of the Vermilion - Teche Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 060209 of the Vermilion - Teche Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment 060209	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Partial	N/A	Full	Not Supported	N/A	N/A	N/A	N/A

^{1/}The designated uses and degree of support for Segment 060209 of the Vermilion - Teche Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 060209 of the Vermilion - Teche Basin, has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the Louisiana pearlshell which is listed as a threatened/endangered species. However, this type of discharge is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, and after consultation with FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

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Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Ms. Afton J. Bessix
Water Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Subsegment 060209, Irish Ditch/Big Bayou – Unnamed Ditch to Irish Ditch (Ditch No.1) to Big Bayou to Irish Ditch No.2 to Confluence with Bayou Rapides, is not listed on LDEQ's Final 2004 303(d) list as impaired. However, subsegment 060209 was previously listed as impaired for organic enrichment/low DO, for which the below TMDL's have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDL's have been established for subsegment 060209:

Irish Ditch/Big Bayou TMDLS for Dissolved Oxygen

The *Irish Ditch/Big Bayou TMDL's for Dissolved Oxygen* was finalized on May 1, 2002. As per the TMDL, "Although listed as part of the Vermilion Basin, hydrologically this subsegment drains into the Red River." Additionally, the TMDL states that no point source upgrades are recommended because there are no point source discharges that have a significant impact on Irish Ditch and Big Bayou.

The TMDL as modeled does not require a reduction in point source discharges at current levels. The level of treatment used to model the Kellyland Wastewater Treatment Facility in the TMDL was 10 mg/l BOD₅ and 5 mg/l NH₃-N for the summer season and 20 mg/l BOD₅ and 10 mg/l NH₃-N for the winter season. At this level of treatment the *Irish Ditch/Big Bayou TMDL for Dissolved Oxygen* has determined the Kellyland Wastewater Treatment Facility will maintain the DO standard of the receiving stream. Therefore, these limitations, as used to model the TMDL, will be required in this permit.

Final Effluent Limits:**OUTFALL 001**

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

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Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅ Nov. – April May – October	8 17	10 mg/l 20 mg/l	15 mg/l 30 mg/l	Limits are set in accordance with the <i>Irish Ditch/Big Bayou TMDL's for Dissolved Oxygen</i> for this discharge.
TSS	13	15 mg/l	23 mg/l	Since there is no numeric water quality criterion for TSS, and in accordance with the current Water Quality Management Plan, the TSS effluent limitations shall be based on a case-by-case evaluation of the treatment technology being utilized at a facility. Therefore, a Technology Based Limit has been established through Best Professional Judgement for the type of treatment technology utilized at this facility.
Ammonia-Nitrogen Nov. – April May – Oct.	4 8	5 mg/l 10 mg/l	10 mg/l 20 mg/l	Limits are set in accordance with the <i>Irish Ditch/Big Bayou TMDL's for Dissolved Oxygen</i> for this discharge.
Dissolved Oxygen	---	5 mg/l	N/A	Limits are set in accordance with the <i>Irish Ditch/Big Bayou TMDL's for Dissolved Oxygen</i> for this discharge.

**This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

Other Effluent Limitations:**1) Fecal Coliform**

The discharge from this facility is into a water body which has a designated use of Secondary Contact Recreation. According to LAC 33:IX.1113.C.5.b, the fecal coliform standards for this water body are 1,000/100 ml and 2,000/100 ml. Therefore, the limits of 1,000/100 ml (Monthly Average) and 2,000/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and the previous permit.

2) pH

According to LAC 33:IX.3705.A.1., POTW's must treat to at least secondary levels. Therefore, in accordance with LAC 33:IX.5905.C., the pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time.

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3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0039004: Issued: June 1, 2003
Expired: May 31, 2008

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Monthly Avg</u>	<u>Weekly Max.</u>	<u>Measurement</u>	<u>Sample</u>
<u>Frequency</u>	<u>Type</u>			
Flow	Report	Report	Continuous	Recorder
CBOD ₅				
November – April	10 mg/l	15 mg/l	2/month	Grab
May – October	20 mg/l	30 mg/l	2/month	Grab
TSS	15 mg/l	23 mg/l	2/month	Grab
Ammonia-Nitrogen				
November - April	5 mg/l	10 mg/l	2/month	Grab
May – October	10 mg/l	20 mg/l	2/month	Grab
Dissolved Oxygen	5 mg/l	---	2/month	Grab
Fecal Coliform Colonies				
Colonies/100 ml	1,000	2,000	2/month	Grab
pH(Standard Units)	within the range of 6.0-9.0 su		2/month	Grab

The permit contains pollution prevention language.

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:**A) Inspections**

A review of the files indicates the following inspection was performed on December 5, 2007 for this facility.

Inspector: Mary Reeves

Findings and/or Violations:

1. Although influent from the subdivision is diverted to the City of Alexandria Wastewater Treatment Plant, renewal of permit has been sent to cover the discharge of any stormwater from the pond until the pond is permanently closed. Pond will not discharge unless there is significant rainfall during the month.

B) Compliance and/or Administrative Orders

A review of the files indicates that no recent enforcement actions have been administered against this facility.

C) DMR Review

A review of the discharge monitoring reports for the period beginning February 2006 through December 2007 has revealed that there are no violations on file.

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XII. ADDITIONAL INFORMATION:

The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

Final effluent loadings (i.e. lbs/day) have been established based upon the permit limit concentrations and the design capacity of 0.1 MGD.

Effluent loadings are calculated using the following example:

$$\text{BOD: } 8.34 \text{ lb/gal} \times 0.1 \text{ MGD} \times 10 \text{ mg/l} = 8.34 \text{ lb/day}$$

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.1 and 0.5 MGD.

Effluent CharacteristicsMonitoring Requirements

	<u>Measurement</u>	<u>Sample</u>
	<u>Frequency</u>	<u>Type</u>
Flow	Continuous	Recorder
CBOD ₅	2/month	Grab
Total Suspended Solids	2/month	Grab
Ammonia-Nitrogen	2/month	Grab
Dissolved Oxygen	2/month	Grab
Fecal Coliform Bacteria	2/month	Grab
pH	2/month	Grab

Pretreatment Requirements

Based upon consultation with LDEQ pretreatment personnel, general pretreatment language will be used due to the lack of either an approved or required pretreatment program.

1. The following pollutants may not be introduced into the treatment facility:
 - a. Pollutants which create a fire or explosion hazard in the publicly owned treatment works (POTW), including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21;
 - b. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the works are specifically designed to accommodate such discharges;
 - c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, resulting in Interference;
 - d. Any pollutant, including oxygen demanding pollutants (e.g., BOD), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW;

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- e. Heat in amounts which will inhibit biological activity in the POTW resulting in Interference but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40 degrees Centigrade (104 degrees Fahrenheit) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits;
 - f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
 - g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and
 - h. Any trucked or hauled pollutants, except at discharge points designated by the POTW.
2. The permittee shall require any indirect discharger to the treatment works to comply with the reporting requirements of Sections 204(b), 307, and 308 of the Clean Water Act, including any requirements established under LAC33.IX.Subpart 2.Chapter 61.
3. The permittee shall provide adequate notice of the following:
- a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Sections 301 and 306 of the Clean Water Act if it were directly discharging those pollutants; and
 - b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.
 - c. Any notice shall include information on (1) the quality and quantity of effluent to be introduced into the treatment works, and (2) any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

Pollution Prevention Requirements

The permittee shall institute or continue programs directed towards pollution prevention. The permittee shall institute or continue programs to improve the operating efficiency and extend the useful life of the facility. The permittee will complete an annual Environmental Audit Report **each year** for the life of this permit according to the schedule below. The permittee will accomplish this requirement by completing an Environmental Audit Form which has been attached to the permit. All other requirements of the Municipal Wastewater Pollution Prevention Program are contained in Part II of the permit.

The audit evaluation period is as follows:

Audit Period Begins	Audit Period Ends	Audit Report Completion Date
Effective Date of Permit	12 Months from Audit Period Beginning Date	3 Months from Audit Period Ending Date

XIII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

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XIV. REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Rapides Parish Sewer District No. 1, Kellyland Subdivision, December 7, 2007.